NEP OVER COAT - Qualified Products - List M

for Protective Coatings for

MAINTENANCE OVERCOATING of Previously Painted Existing Steel Bridges

Nepcoat Product No.	Coats	PRODUCTS - TESTED AND ACCEPTED	Recom'd Coating DFT (min/max) mil	micron	VOC (Delivered) lb/gal	g/L	QPL Approval Dates
NEP OVER COAT -QPL- LIST **M**							
M1-99	(1A)	AMERON PROTECTIVE COATINGS					from
	Primer	VyGuard 513F108 (M202) moisture cure urethane	2-3	50-75			5/7/03
	Inter	----	---	---			until
	Finish	V41 Series (M222) semi-gloss urethane topcoat	3-6	75-150			(note 8)
M2-99	(2B)	AMERON PROTECTIVE COATINGS					from
	Primer	VyGuard 17F118 (M50) alkyd primer	6-8	150-200			5/7/03
	Inter	----	---	---			until
	Finish	Amercoat 220 WB acrylic topcoat	2	50			(note 8)
Note: In testing this product took days to cure.							
M3-99	(6F)	CARBOLINE COMPANY					from
	Primer	Rust Bond HB (Carboguard 954 HB) 100% solids epoxy	5	125			5/7/03
	Inter	Rust Bond HB (Carboguard 954 HB) 100% solids epoxy	3	75			until
	Finish	Subsil 30 HS (Carbocoat 30) 30% silicone alkyd	2	50			(note 8)
M4-99	(8H)	INTERNATIONAL PROTECTIVE COATINGS					from
	Primer	Interthane 97 Aluminum moisture cure urethane primer	2-3	50-75			5/7/03
	Inter	Interthane 45 MIO moisture cure urethane intermediate	3	75			until
	Finish	Interthane 710 moisture cure urethane topcoat	3	75			(note 8)
M5-99	(10K)	RUSTOLEUM					from
	Primer	Rust-O-Thane 6780 zinc MIO moisture cure urethane	2-3	50-75			5/7/03
	Inter	-----	---	---			until
	Finish	9800 DTM Urethane mastic	3-5	75-125			(note 8)
M6-99	(11L)	RUSTOLEUM					from
	Primer	Rust-O-Crylic 5700 (Noxyde Plus) elast'c mastic acrylic	10	250			5/7/03
	Inter	-----	---	---			until
	Finish	Rust-O-Crylic 5700 (Noxyde Plus) elast'c mastic acrylic	10	250			(note 8)
Note: In testing this product was difficult to apply with brush & roller and left pronounced brush & roller marks after drying.							
M7-99	(12M)	SHERWIN WILLIAMS					from
	Primer	Corothane I Mastic MIO moisture cure urethane	2.5-3.5	62-88			5/7/03
	Inter	-----	---	---			until
	Finish	Corothane I Ironox A moisture cure urethane	2.5-3.5	62-88			(note 8)

Issue Date: 5/7/03

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for Protective Coatings for

MAINTENANCE OVERCOATING of Previously Painted Existing Steel Bridges

Nepcoat Product No.	Coats	PRODUCTS - TESTED AND ACCEPTED	Recom'd Coating DFT (min / max) mil	micron	VOC (Delivered) lb/gal	g/L	QPL Approval Dates
NEP OVER COAT LIST **M**							
M8-99	(13N)	WASSER					from
	Primer	MC-Mio Aluminum MIO moisture cure urethane	1.5-2	38-50			5/7/03
	Inter	MC-Ferromastic MIO moisture cure urethane	3-5	75-125			until
	Finish	MC-Ferrox A MIO moisture cure urethane	2.5-3.5	62-88			(note 8)

NOTES:

1 NEPCOAT is the NORTHEAST PROTECTIVE COATING COMMITTEE of CT, ME, MA, NH, NJ, NY, PA, RI, VT

2 NEP OVER COAT is a three-year field testing program of the NEPCOAT committee for qualifying and accepting coating products for maintenance overcoating previously painted existing steel bridges. Corrosion Control Consultants & Labs, Inc. conducted the testing program, including surface preparation, coating application, and performance evaluations. The States provided salvage steel beams for testing at the following sites: Farmington, ME, Scarborough, ME, New Haven, CT, and New Castle, PA.

3 Each product was applied to these surfaces: (a) intact existing coating; (b) surfaces hand tool cleaned (SP2) with chisel, wire brush, and scraper; (c) surfaces power tool cleaned (SP3) with needle gun, roto-peen , 3M Scotch-Brite™ Clean and Strip disk sander; (d) surfaces cleaned to SP11 condition with roto-peen; and (e) chloride-contaminated pre-rusted metal bar welded to the test beam and cleaned half to SP2 and half to SP3. All surfaces were first power washed at 3,500 psi with a rotating zero-degree nozzle and offset 4-6 inches from the surface. Each test panel was scribed (surface f). During the winter months all test patches were sprayed with 1% salt water. A roof shelter was built over half of the test panels.

4 All coatings were applied by brush and roller (no spray) and according to manufacturer's recommendations.

5 (Mx-99) products comply with NEPOVER COAT 99 Testing Program (5/19/99) & Acceptance Criteria (4/17/03).

6 The VOC values are provided by the testing lab. NEPCOAT max limit (3.5 lb/gal). DFT values are from manufacturer.

7 Any change in formulation of the product from that tested will result in removal of the product from the QPL.

8 The term of QPL acceptance is provisional pending verification of compositional properties and future performance.

ACCEPTANCE CRITERIA:

1 The acceptance criteria included the average results from all four state sites (except as noted) and these requirements:
- that surfaces (a)(b)(c)(d)(f) receive a (min.) rating of 9 out of 10 (Farmington, ME site excluded from (a)(b)(c)(f));
- for surface (d) only the sheltered panels were included;
- that the power tool side of surface (e) receive a (min.) rating of 6.5 out of 10 (New Castle, PA site excluded).

The performance ratings came from a CCC&L rating system. See note 3 above for description of surfaces.

2 The suitability of applying the coating by brush and roller was noted but not required for acceptance.

3 The final appearance was noted. Systems varied on gloss and color retention, and presence of brush and roller marks.

COMMENTS:

1 It is important to properly evaluate the condition of the existing coating to determine suitability for overcoating. See the reference SSPC-TU 3, Overcoating.

2 Power washing is suggested. Clean surfaces of chloride contaminants. Test for chlorides following surface preparation.

3 Coatings performed better with greater surface preparation (e.g. SP11 > SP3). SP2 hand tool preparation is not suggested.

4 Apply the coating product according to the coating manufacturer's recommendations.